

### **4.3 INTERNATIONAL TRADE ISSUES**

Historically, foreign competition within the U.S. lithographic blanket wash industry has been limited due to the dominance of domestic suppliers as well as several barriers to import, including: 1) disparities in petroleum prices favoring U.S. manufacturers; 2) transportation expenses and import duties; and 3) paperwork requirements such as Material Safety Data Sheets (MSDS) and Toxic Substances Control Act (TSCA) reporting requirements.<sup>1</sup> Barriers also exist for U.S. companies seeking to enter foreign markets. U.S. manufacturers will often require a local distributing partner which invariably raises the selling price of the product, further reducing their profit margins.<sup>2</sup>

According to industry sources, very few companies compete on an international basis within the blanket wash industry. International competition within the U.S., however, is anticipated to increase as greater emphasis is placed on low-VOC, environmentally friendly washes.<sup>3,4</sup> Low VOC washes, which do not rely upon the relatively inexpensive raw materials of traditional washes, allow foreign competitors to profitably export blanket wash products to the United States. Upon arrival, concentrated blanket washes are often diluted by local blending companies and shipped to market. According to industry sources, European manufacturers are major competitors in the "green" segment of the blanket wash market, with Denmark leading the conversion to environmentally preferable washes.<sup>5,6</sup>

#### **4.3.1 International Trade of Petroleum-based Blanket Washes**

According to industry contacts, high-VOC, petroleum-based washes are the dominant blanket wash product worldwide because of their low cost and good performance. Imports of traditional, petroleum-based blanket washes into the United States, however, have been limited. Industry contacts cite two primary reasons for the limited import of blanket washes: 1) refining capabilities in the United States are sufficient to satisfy domestic production needs and are often superior to foreign capabilities, and 2) prohibitive costs resulting from tariffs and transportation expenses reduce potential profits for imports.<sup>7</sup> The potential for the export of petroleum-based washes from the United States, however, is much greater.

According to industry sources, petroleum-based blanket washes are being exported from the U.S. in significantly greater quantities than are being imported. For example, Varn International is currently generating in excess of fifty-percent of their blanket wash sales from products manufactured in the United States and exported abroad. Varn does not import any cleaning solvents into the U.S. market. The main export destinations for Varn's blanket wash products include: Mexico, the Caribbean, Central and South America, Japan, Korea, and Taiwan. In addition to Varn, several other U.S. companies are exporting blanket washes to foreign markets, including: Prisco, Printex, Anchor/Lithkemko, Rycoline, and RBP Chemical. These blanket wash manufacturers are exporting their products to various destinations throughout the world. For example, Anchor/Lithkemko exports petroleum-based blanket washes to Europe, Australia, and the Far East; Prisco exports to Europe, Mexico, and Canada; RBP Chemical exports small quantities of blanket washes to Canada and the Philippines, and Printex exports to Europe, Canada, and Korea.<sup>8,9</sup>

The largest markets for printed materials and therefore blanket washes are the United States, Japan, and Germany; however, the fastest growing markets are located in Asia and Central and South America.<sup>10</sup> Recently, Varn has been focusing their foreign trade efforts on Central and South American nations as their governments continue to relax barriers to foreign trade. Significant growth is said to be occurring in these markets, although any growth can be considered significant since current levels of importation are extremely low. The Varn representative also indicated that sales to Pacific Rim nations, such as Korea and Taiwan, are holding steady or increasing because of their expanding markets for printed materials as well as

the relaxing of import restrictions.<sup>11</sup> Representatives of both Varn and Anchor identified difficulties in penetrating the Japanese market because of the many import restrictions as well as the strong ethic to purchase locally.<sup>12,13</sup> Foreign companies attempting to enter the Japanese market would require a strong relation with a local distributing partner in order to successfully enter the Japanese market.<sup>14</sup> According to a representative of Varn, sales to Japan are down and have been steadily decreasing over the past several years.<sup>15</sup>

#### **4.3.2 International Trade of "Low VOC" Blanket Washes**

Spurred by concerns regarding the release of VOCs as well as health and safety concerns associated with the use of petroleum-based blanket washes, U.S. and foreign blanket wash manufacturers have developed a range of low-VOC washes, providing an alternative to "traditional," petroleum-based washes. A wide range of low-VOC washes are currently available in the United States, several of which are manufactured or developed abroad. According to industry contacts, low-VOC washes are more likely to be imported into the U.S. market than are petroleum-based washes because of the higher valued raw materials that go into their production. Currently, low-VOC, low toxicity washes control a small portion of the total international blanket wash market. Denmark has proven to be leader in the transition to alternative blanket washes, with an estimated 30 percent of their offset-printing shops using vegetable-based washing agents.<sup>16</sup>

Petroleum-based washes dominate the blanket wash market worldwide; however, the European community has made a significant investment in promoting the use of "alternative" blanket washes, with special emphasis on the use of vegetable-oil technology. It is estimated that 30 percent of Danish offset-printing shops and 5-10 percent of German offset-printing shops currently employ vegetable-based washes to some degree. To further promote their use, the European parliament has allocated roughly 2 million European Currency Units (ECU) or approximately \$2.7 million to train printers in the use of vegetable-based washes, and collect and disseminate information on technical, ecological, and economic aspects of the substitution of petroleum-based washes. The Subscript project, which has full responsibility for promoting the vegetable technology, was established in 1993 and is expected to last three years.<sup>17</sup> According to a representative of Varn International, based in the United Kingdom, health and safety concerns have been the primary impetus behind the promotion of vegetable-oil based washes in Europe. This is in contrast to the United States, where air quality concerns have been the driving force behind the development of alternative washes.<sup>18</sup>

#### **4.3.3 Joint Ventures Impacting the International Trade of Blanket Washes**

In addition to the export of blanket wash products from the United States, North American companies have penetrated foreign markets through joint ventures with foreign companies. For example, Deluxe Corporation, one of the largest printers in the United States, has entered into an agreement with Coates Lorilleux S.A., a Paris-based company, to manufacture and distribute its Printwise ink system throughout Europe and beyond. The Deluxe ink is a vegetable oil-based lithographic ink that can be converted into a water-soluble form after printing is complete. Once the conversion has occurred, the water-soluble ink can be removed with a water-based blanket cleaning solution; thereby, eliminating the need for traditional cleaning solvents containing VOCs. The vegetable oil-based ink and water-based blanket wash together compose the Printwise ink "system".

Flint Ink, under exclusive agreement with Unichema International, has recently begun marketing a vegetable-oil-based press cleaner. Unichema International, based in the Netherlands, developed the product at its laboratories in the Netherlands and first introduced the wash into the European market in 1993. Recently, Flint Ink entered into an exclusive agreement with Unichema to market the product in the United States.

### Conclusions

Few companies are involved in international trade in blanket washes (both petroleum based and lower-VOC washes). By and large, petroleum-based blanket wash products are dominant in both the domestic and international printing industry with relatively little importation of such products into the United States. U.S. manufacturers are currently exporting blanket wash products worldwide with growing markets in Asia and the Americas. Although petroleum-based blanket wash products dominate the blanket wash industry, low-VOC products are also a growth area in response to air quality concerns in the United States and health and safety concerns in Europe. Vegetable-oil-based products are more likely to be imported into the United States because they are competitively priced with similar U.S. made products. The markets for these products are expected to grow as a result of U.S. joint ventures with European manufacturers.

### **References**

1. Telecon. Van Atten, Christopher, Abt Associates Inc., Cambridge, MA, with Rollins, David, Varn International, Greater Manchester, U.K. June 15, 1995.
2. Telecon. Van Atten, Christopher, Abt Associates Inc., Cambridge, MA, with Stevens, John, Anchor/Lithkemko, Zwolle, Holland. June 21, 1995.
3. Telecon. Van Atten, Christopher, Abt Associates Inc., Cambridge, MA, with Brady, Ray, Anchor/Lithkemko, Orange Park, FL. May 3, 1995.
4. Sheppard, William J. Litho Research. Fax received April 21, 1995.
5. Sheppard, William J. Litho Research. Fax received April 21, 1995.
6. Telecon. Van Atten, Christopher, Abt Associates Inc., Cambridge, MA, with Stevens, John, Anchor/Lithkemko, Zwolle, Holland. June 21, 1995.
7. Telecon. Van Atten, Christopher, Abt Associates Inc., Cambridge, MA with Vonzwehl, Paul, Varn International, Oakland, NJ. May 31, 1995.
8. Telecon. Van Atten, Christopher, Abt Associates Inc., Cambridge, MA, with Kroneman, Barry, Prisco, Newark, NJ. May 23, 1995.
9. Hoppe, Debbie. Printex Products Corporation. Memorandum to Jed Meline, U.S. EPA. November 8, 1995.
10. Telecon. Van Atten, Christopher, Abt Associates Inc., Cambridge, MA, with Stevens, John, Anchor/Lithkemko, Zwolle, Holland. June 21, 1995.
11. Telecon. Van Atten, Christopher, Abt Associates Inc., Cambridge, MA, with Vonzwehl, Paul, Varn International, Oakland, NJ. May 31, 1995.
12. Telecon. Van Atten, Christopher, Abt Associates Inc., Cambridge, MA, with Stevens, John, Anchor/Lithkemko, Zwolle, Holland. June 21, 1995.
13. Telecon. Van Atten, Christopher, Abt Associates Inc., Cambridge, MA with Vonzwehl, Paul, Varn International, Oakland, NJ. May 31, 1995.

14. Telecon. Van Atten, Christopher, Abt Associates Inc., Cambridge, MA, with Stevens, John, Anchor/Lithkemko, Zwolle, Holland. June 21, 1995.
15. Telecon. Van Atten, Christopher, Abt Associates Inc., Cambridge, MA with Vonzwehl, Paul, Varn International, Oakland, NJ. May 31, 1995.
16. Telecon. Van Atten, Christopher, Abt Associates Inc., Cambridge, MA, with Stevens, John, Anchor/Lithkemko, Zwolle, Holland. June 21, 1995.
17. Subprint Project Newsletter. *Subsprint: Background Detail*. Kooperationsstelle, Hamburg. July 1993.
18. Telecon. Van Atten, Christopher, Abt Associates Inc., Cambridge, MA, with Rollins, David, Varn International, Greater Manchester, U.K. June 15, 1995.